

Photo 116. View of black painted acoustical plaster ceiling finish in medicine exhibit (west gallery)

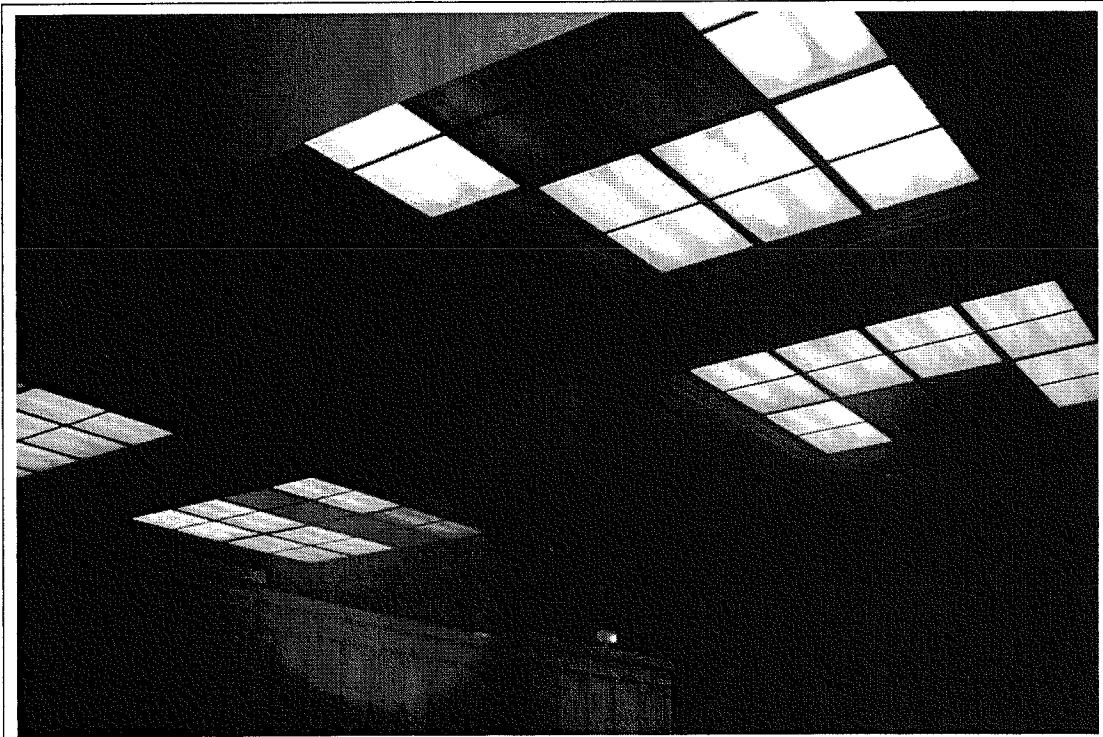


Photo 117. View of acoustical spray finish in main west exhibit gallery (adjacent to lobby)

TUSCON CONVENTION CENTER (TCC) (Leo Rich Theatre)

Building Location: Church Street Tucson, Arizona

Date of Site Visit: 11/16/06

Field Notes, Background & General Observations

Building Type: A large municipal theatrical venue constructed of cast concrete and steel.

Material Type: Asbestos-Containing Fireproofing applied to structural steel (corrugated metal pan decking, columns and I beams) with significant overspray on walls (at roof deck interface), piping, conduit, electrical and HVAC equipment.

Fireproofing present is a vermiculite based material with a taupe colored appearance – identified as a WR Grace Monokote product.

Material Analysis: Previous bulk sample analysis by EPA/600/R-93/116 indicates fireproofing is asbestos containing

Material Location: Applied to the beams and deck in the attic above the “raised front” front lobby area and above the plaster ceilings in the adjacent restrooms, concessions and ticket office.

Accessibility: Generally limited to maintenance staff and trades – fireproofing is primarily located above a suspended ceiling system comprised of a metal support grid and “lay-in” style ceiling tiles, however, penetrations in the ceiling (return air grills) provide some fallout potential to building occupants in those areas.

Fireproofing located above plaster ceiling areas is accessible only thru locked ceiling hatches.

Material Friability: Friable (easily crumbled)

Material Damage: Obvious delamination observed throughout application (evidenced by fireproofing dust, debris and small pea to fist size chunks deposited on horizontal surfaces below deck (including ceiling tiles, duct work and light fixtures)).

AHERA Assessment

Current Material Condition: Fair Overall – fireproofing generally appears to be substantially intact, however fine dust and debris are visible on most horizontal surfaces.

Physical Assessment: Friable

Damage Assessment: DAMAGED - Approximately 5 to 8% distributed damage with sporadic areas of localized damage (<25%)

Material Category: Damaged Friable Surfacing ACM

Potential for Disturbance: Limited – in the raised lobby a suspended ceiling serves as a barrier between the fireproofing and the occupants below. Though infrequent (due to the elevated ceiling height - 20+ feet), maintenance activities are performed above and at the ceiling on a periodic basis which likely disturbs delaminated/dislodged fireproofing.

Freq. of Potential Contact: Infrequent – in most building areas as maintenance and building occupants are aware of asbestos fireproofing in the building and know not to purposely disturb it.

Influence of Vibration: Moderate – in most areas primarily from HVAC units and equipment hung from the fireproofed decking.

Potential for Air Erosion: Low – The plenum space above the suspended ceiling may serve as an open air return to the HVAC system.

Overall Rating: Potential for Future Damage

Contamination Assessment

Dust Samples: Two micro-vacuum settled dust samples and one surface contact sample were collected and analyzed from horizontal surfaces situated directly beneath the fireproofing. Observations (relative to morphology, matrix and color) made at the time of dust collection confirmed that the dust and debris collected in the samples were from delaminated/dislodged fireproofing applied directly above the vacuumed surface. Analysis of the dust samples indicates extreme contamination based on asbestos concentrations ranging from approximately 24.6 billion to 84 billion asbestos fibers per square foot. Refer to table below:

Sample #	Sample Date	General Sample Location	Sample Surface	Asbestos Structures Counted	Asbestos (Conc.) Str/Ft ²	Asbestos (Conc.) Str/Cm ²	Relative Contamination Level
1	11/16/2006	Theatre lobby ground floor men's restroom	Top of plaster roof deck	21	2.46x10 ¹⁰	2.46x10 ⁸	Extreme
2	11/16/2006	Tucson Community Center, attic above front lobby	Top of suspended ceiling tile	112	8.40x10 ¹⁰	8.40x10 ⁸	Extreme

Direct Prep Analysis of the one surface contact sample revealed the presence of free un-encapsulated Chrysotile asbestos fibers in the sample. This data confirms the release of respirable fibers from the acoustical plaster present in the subject building.

Sample #	Sample Date	General Sample Location	Sample Surface	Sample Area	Free Asbestos Fibers Observed
A-1	11/16/2006	Theatre lobby , ground floor men's restroom	Top of plaster roof deck	47mm	Yes

Photographs: **LEO RICH THEATRE**

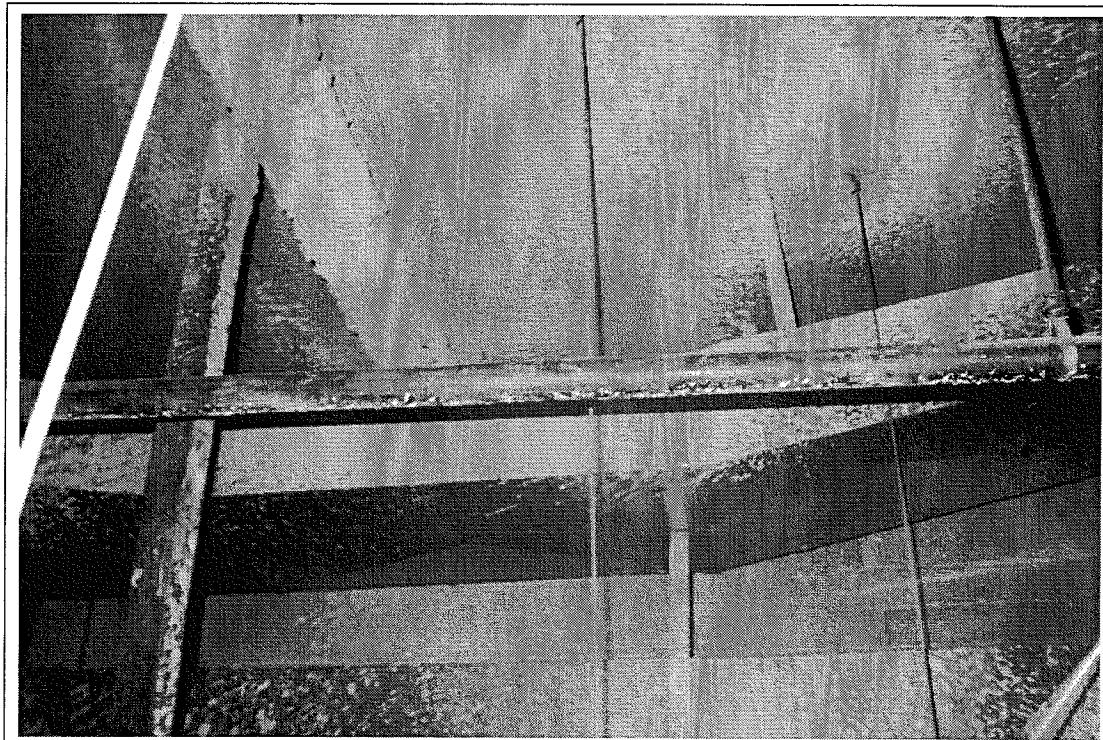


Photo 118. View of fireproofing applied to steel I-beams and overspray on decking – above Men's restroom in front lobby (north end)

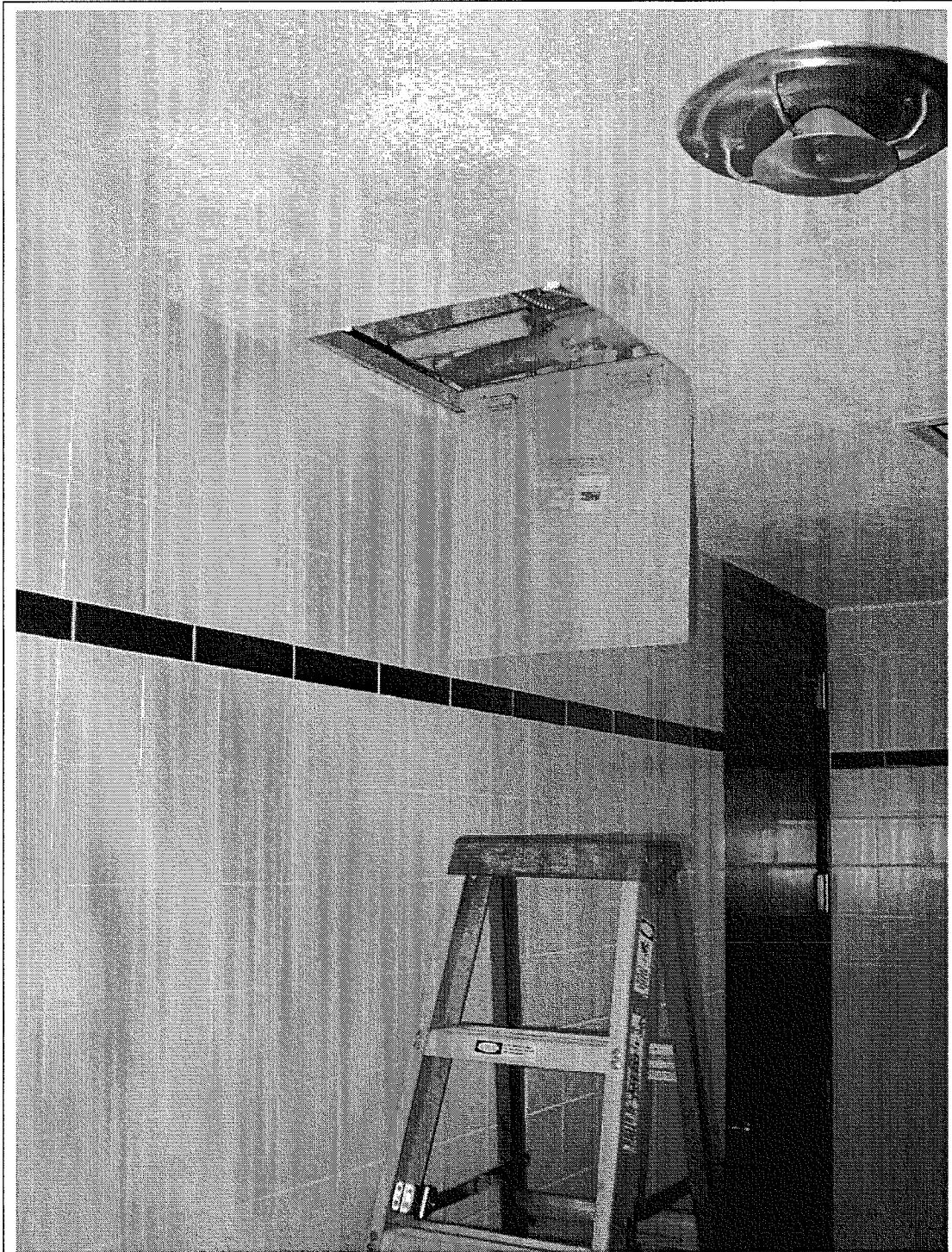


Photo 119. View of access hatch to plenum space containing fireproofing in Men's restroom – North lobby area



Photo 120. General view of fireproofing on steel I-beams and overspray on corrugated metal pan decking, hangers and piping located in the attic space above the front lobby

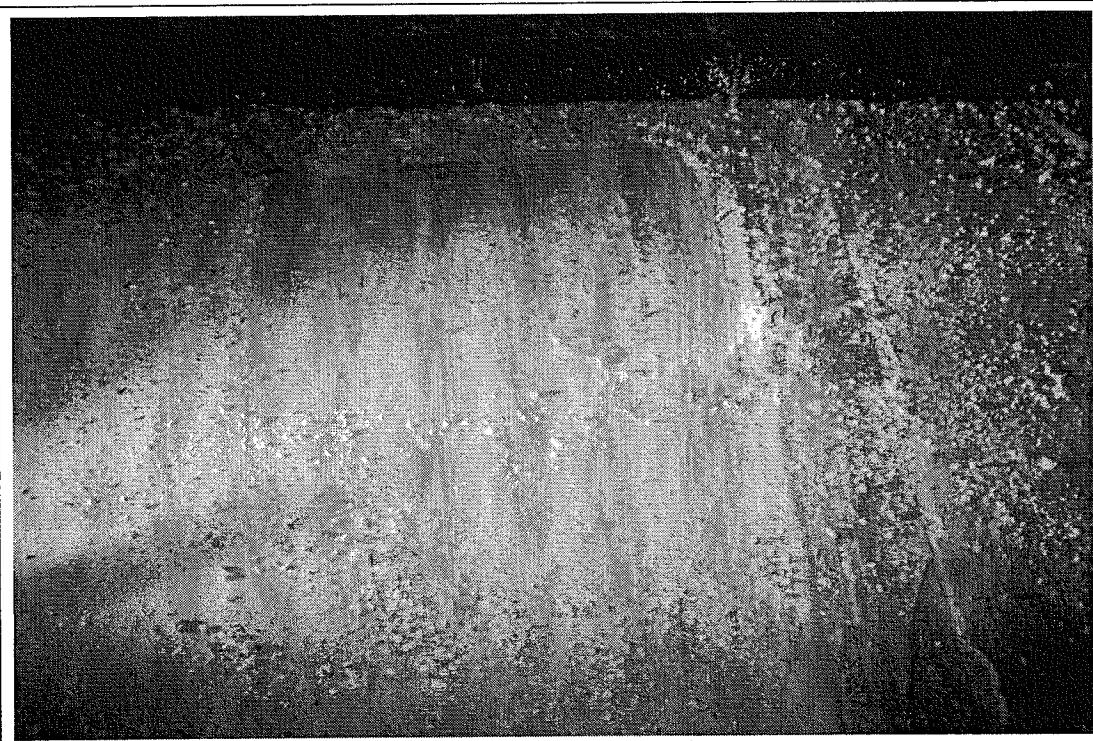


Photo 121. Location of dust sample #2 (top of gypsum board ceiling tile) located above elevated lobby in attic space

TUSCON CONVENTION CENTER (TCC) (Tucson Music Hall)

Building Location: Church Street Tucson, Arizona

Date of Site Visit: 11/16/06

Field Notes, Background & General Observations

Building Type: A large municipal orchestral and operatic auditorium constructed of concrete and steel.

Material Type: Asbestos-Containing Fireproofing applied to structural steel (corrugated metal pan decking, columns and I beams) with significant overspray on attic walls (at roof deck interface), piping, conduit, cat-walks, electrical and HVAC equipment.

Fireproofing present is a vermiculite based material with a taupe colored appearance – identified as a WR Grace Monokote product.

Material Analysis: Previous bulk sample analysis by EPA/600/R-93/116 indicates fireproofing is asbestos containing

Material Location: Applied to the beams and deck in the attic above the patron seating areas and equipment control room – accessed from the 5th floor stairwell.

Accessibility: Generally limited to maintenance staff, lighting technicians and trades – fireproofing is primarily located above a suspended ceiling system comprised of a metal support grid and “lay-in” style ceiling tiles, however, penetrations in the ceiling (consisting of light wells and return air grills) provide some fallout potential to building occupants below those areas.

Material Friability: Friable (easily crumbled)

Material Damage: Obvious delamination observed throughout application (evidenced by fireproofing dust, debris and small pea to fist size chunks deposited on horizontal surfaces below the beams and deck (including cat walks, fiberglass batt insulation and HVAC equipment).

AHERA Assessment

Current Material Condition: Fair to Poor Overall – fireproofing generally appears to be substantially intact, however fine dust and debris are visible on all horizontal surfaces. Fireproofing overspray is highly deteriorated as it covers the catwalks and is impacted and disturbed by foot traffic and handrail use.

Physical Assessment: Friable

Damage Assessment: DAMAGED - Approximately 10% distributed damage with sporadic areas of localized damage (<25%)

Material Category: Damaged Friable Surfacing ACM

Potential for Disturbance: High – although the fireproofing is located in an attic area with access restricted to maintenance and trade staff – routine maintenance of the house lights and HVAC equipment stored there requires routine access resulting in disturbance due to location and abundance of the fireproofing overspray in the attic.

Freq. of Potential Contact: Moderate to High – although maintenance staff are aware of the presence of asbestos fireproofing in the attic and know not to purposely disturb it – routine maintenance activities are frequent and inevitably result in contact with the material.

Influence of Vibration: Moderate – HVAC equipment for the building is located in this area and runs on a daily schedule.

Potential for Air Erosion: Low – The attic space is not used as a return air plenum.

Overall Rating: Potential for Future Damage

Photographs: **TUCSON MUSIC HALL**

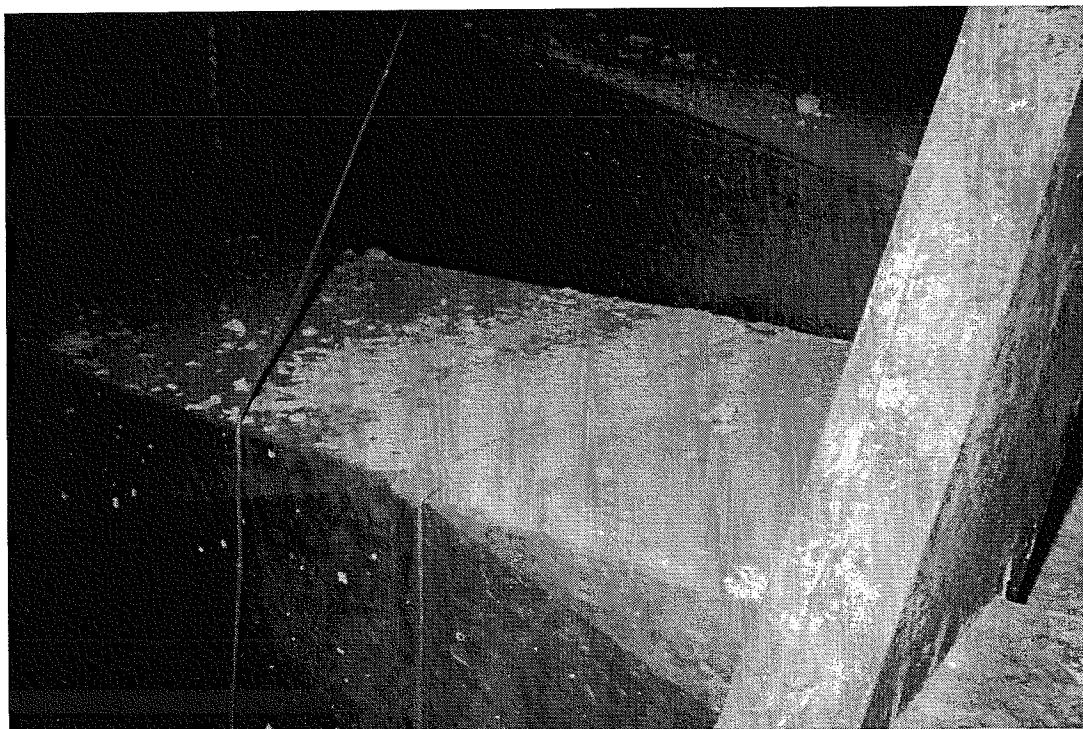


Photo 122. View of delaminated fireproofing debris on top of HVAC duct in 5th floor attic



Photo 123. View of fireproofing overspray on hand rails and steps in 5th floor attic

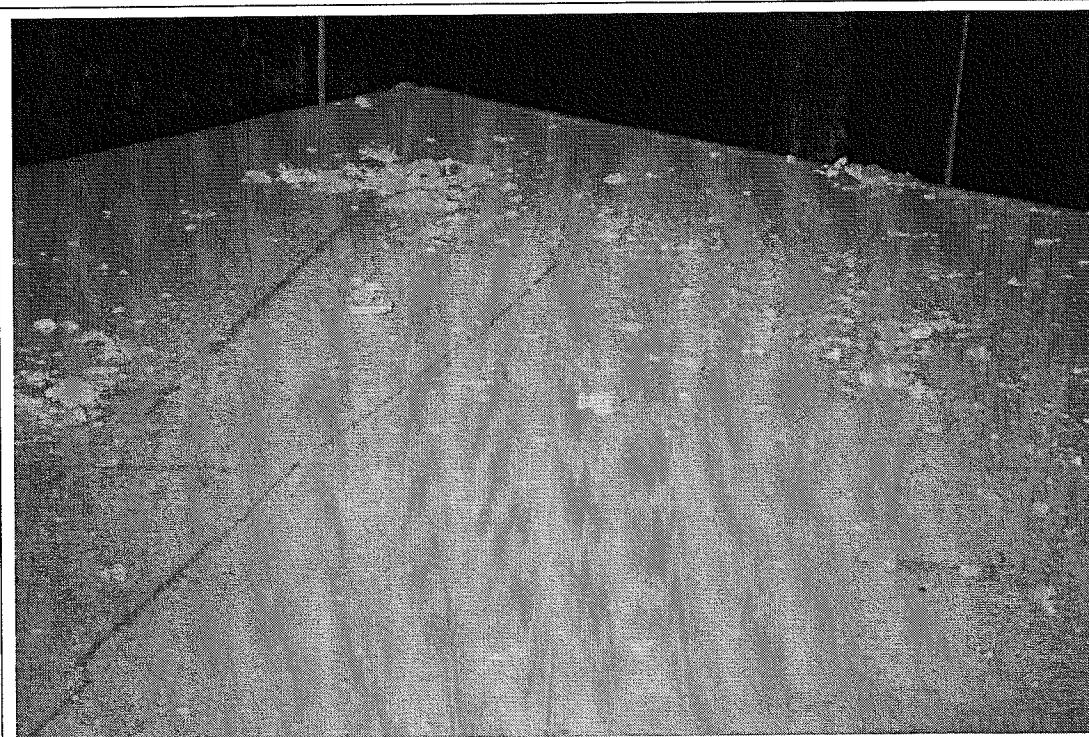


Photo 124. Close-up of delaminated fireproofing debris on top of HVAC duct in 5th floor attic